

# **FIBER OPTIC RECEIVER WITH AN ADJUSTABLE BANDWIDTH POST-AMPLIFIER**

## **ABSTRACT**

In one aspect, the invention features a fiber optic receiver that includes a preamplifier circuit incorporated together with an opto-electronic transducer in a receiver optical sub-assembly (ROSA), and an adjustable bandwidth post-amplifier that is located outside the ROSA to allow the overall size of the receiver package to be reduced. The ROSA is mounted on a substrate and is fitted with a fiber optic connector for coupling to a mating connector of a fiber optic cable. The opto-electronic transducer is incorporated within the ROSA and is configured to generate an electrical data signal in response to a received optical data signal. The preamplifier circuit is incorporated within the ROSA and is operable to linearly amplify an electrical data signal generated by the opto-electronic transducer. The adjustable bandwidth post-amplifier circuit is mounted on the substrate and is coupled to an output of the preamplifier circuit.